

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING **ERROR REPORT**

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Application Serial Number: 10/567,168
Source: IFWP
Date Processed by STIC: 2/10/06

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FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

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<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>) , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06



IFWP

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/567,168

DATE: 02/10/2006

TIME: 09:45:50

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\02102006\J567168.raw

3 <110> APPLICANT: National Institute of Advanced Industrial Science and Technology
 4 Takagi, Yasuomi
 6 <120> TITLE OF INVENTION: A method for efficient preparation of dumbbell-shaped DNA
 8 <130> FILE REFERENCE: FP-041PCT
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/567,168
 C--> 11 <141> CURRENT FILING DATE: 2006-02-03
 13 <150> PRIOR APPLICATION NUMBER: JP P2003-206905
 14 <151> PRIOR FILING DATE: 2003-08-08
 16 <160> NUMBER OF SEQ ID NOS: 25
 18 <170> SOFTWARE: PatentIn Ver. 2.1
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 245
 22 <212> TYPE: DNA
 23 <213> ORGANISM: Artificial Sequence
 25 <220> FEATURE:
 26 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
 28 <400> SEQUENCE: 1
 29 aaggctgggc aggaagaggg cctattttcc atgattcctt catatttgca tatacgatac 60
 30 aaggctgtta gagagataat tagaattaat ttgactgtaa acacaaagat attagtacaa 120
 31 aatacgtgac gtagaaagta ataatttctt gggtagtttg cagttttaaa attatgtttt 180
 32 aaaatggact atcatatgct taccgtaact tgaaagtatt tcgatttctt ggctttatat 240
 33 atctt 245
 36 <210> SEQ ID NO: 2
 37 <211> LENGTH: 104
 38 <212> TYPE: DNA
 39 <213> ORGANISM: Artificial Sequence
 41 <220> FEATURE:
 42 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
 44 <400> SEQUENCE: 2
 45 aatatttgca tgctgctatg tggtctggga aatcaccata aacgtgaaat gtctttggat 60
 46 ttgggaatct tataagttct gtatgagacc acagatcgat cccc 104
 49 <210> SEQ ID NO: 3
 50 <211> LENGTH: 86
 51 <212> TYPE: DNA
 52 <213> ORGANISM: Artificial Sequence
 54 <220> FEATURE:
 55 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
 57 <400> SEQUENCE: 3
 58 accgttggtt tccgtagtgt agtggttatc acgttcgcct aacacgcgaa aggtccccgg 60
 59 ttcgaaaccg ggcactacaa aaacca 86
 62 <210> SEQ ID NO: 4
 63 <211> LENGTH: 14
 64 <212> TYPE: DNA

Does Not Comply
 Corrected Diskette Needed

pp 2,5,6

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Output Set: N:\CRF4\02102006\J567168.raw

65 <213> ORGANISM: Artificial Sequence
67 <220> FEATURE:
68 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
70 <400> SEQUENCE: 4
W--> 71 ggatgggagg atgg *see p. 6 for env explanation* 14
74 <210> SEQ ID NO: 5
75 <211> LENGTH: 15
76 <212> TYPE: DNA
77 <213> ORGANISM: Artificial Sequence
79 <220> FEATURE:
80 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
82 <400> SEQUENCE: 5
W--> 83 ggatgggagg atgg *same env* 15
86 <210> SEQ ID NO: 6
87 <211> LENGTH: 16
88 <212> TYPE: DNA
89 <213> ORGANISM: Artificial Sequence
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
94 <400> SEQUENCE: 6
W--> 95 ggatgggagg atgg *same* 16
98 <210> SEQ ID NO: 7
99 <211> LENGTH: 17
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
106 <400> SEQUENCE: 7
W--> 107 ggatgggagg atgg *same* 17
110 <210> SEQ ID NO: 8
111 <211> LENGTH: 15
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
118 <400> SEQUENCE: 8
119 ggcgttcggg gggta 15
122 <210> SEQ ID NO: 9
123 <211> LENGTH: 63
124 <212> TYPE: DNA
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
130 <400> SEQUENCE: 9
131 ggctatgtct aggagtgtac ctagaattac atcaagggag atgggtgcgct cctggacgta 60
132 gcc 63
135 <210> SEQ ID NO: 10
136 <211> LENGTH: 53
137 <212> TYPE: DNA

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138 <213> ORGANISM: Artificial Sequence
140 <220> FEATURE:
141 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
143 <400> SEQUENCE: 10
144 gggtaattgg tagattaagc ggtgtgctgt cccgcttgat ctgccaattg ccc           53
147 <210> SEQ ID NO: 11
148 <211> LENGTH: 43
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
155 <400> SEQUENCE: 11
156 gggaattcac ctgccggcga gggttttccc agtcacgacg ttg           43
159 <210> SEQ ID NO: 12
160 <211> LENGTH: 46
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
165 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
167 <400> SEQUENCE: 12
168 ggctgcagac ctgccggcca ccgagcggat aacaatttca cacagg           46
171 <210> SEQ ID NO: 13
172 <211> LENGTH: 34
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial Sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
179 <400> SEQUENCE: 13
180 ggtgtgtccg cgttggcttt tgccaacgcg gaca           34
183 <210> SEQ ID NO: 14
184 <211> LENGTH: 59
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
191 <400> SEQUENCE: 14
192 cctcggccta tagtgagtcg tattaggcgg gaaccgccta atacgactca ctataggcc  59
195 <210> SEQ ID NO: 15
196 <211> LENGTH: 41
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
203 <400> SEQUENCE: 15
204 ttaggagttt tctcctaagc gttttcccag tcacgacggt g           41
207 <210> SEQ ID NO: 16
208 <211> LENGTH: 41
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence

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Output Set: N:\CRF4\02102006\J567168.raw

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212 <220> FEATURE:
213 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
215 <400> SEQUENCE: 16
216 ttaggagttt tctcctaagc gttttcccag tcacgacgtt g 41
219 <210> SEQ ID NO: 17
220 <211> LENGTH: 41
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
227 <400> SEQUENCE: 17
228 ttaggagttt tctcctaagc gttttcccag tcacgacgtt g 41
232 <210> SEQ ID NO: 18
233 <211> LENGTH: 44
234 <212> TYPE: DNA
235 <213> ORGANISM: Artificial Sequence
237 <220> FEATURE:
238 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
240 <400> SEQUENCE: 18
241 ttaggtcttt tgacctaac gagcggataa caatttcaca cagg 44
244 <210> SEQ ID NO: 19
245 <211> LENGTH: 39
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
252 <400> SEQUENCE: 19
253 gttttcccag tcacgacgtt gaaggctcggg caggaagag 39
256 <210> SEQ ID NO: 20
257 <211> LENGTH: 44
258 <212> TYPE: DNA
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
264 <400> SEQUENCE: 20
265 gagcggataa caatttcaca caggaaaaag gctacgtcca ggag 44
268 <210> SEQ ID NO: 21
269 <211> LENGTH: 417
270 <212> TYPE: DNA
271 <213> ORGANISM: Artificial Sequence
273 <220> FEATURE:
274 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
276 <400> SEQUENCE: 21
277 ttaggagttt tctcctaagc gttttcccag tcacgacgtt gaaggctcggg caggaagagg 60
278 gcctattttc catgattcct tcatatttgc atatacgata caaggctgtt agagagataa 120
279 ttagaattaa tttgactgta aacacaaaga tattagtaca aaatacgtga cgtagaaagt 180
280 aataatttct tgggtagttt gcagttttta aattatgttt taaaatggac tatcatatgc 240
281 ttaccgtaac ttgaaagtat ttcgatttct tggctttata tatcttggtg aaaggacgaa 300
282 acaccggcta tgtctaggag tgtacctaga attacatcaa gggagatggg gcgctcctgg 360

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Input Set : A:\PTO.RJ.txt
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283 acgtagcctt tttcctgtgt gaaattgtta tccgctcgct taggtcaaaa gacctaa 417
285 <210> SEQ ID NO: 22
286 <211> LENGTH: 93
287 <212> TYPE: DNA
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
293 <400> SEQUENCE: 22
294 tttcccatga ttccttcata ttgcatctt accgtaactt gaaagtattt cgatttcttg 60
295 gctttatata tcttgtggaa aggacgaaac acc 93
298 <210> SEQ ID NO: 23
299 <211> LENGTH: 109
300 <212> TYPE: DNA
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
306 <400> SEQUENCE: 23
307 tttcccatga ttccttcata ttgcatata ggactatcat atgcttaccg taacttgaaa 60
308 gtatttcgat tcttggctt tatatatctt gtggaaagga cgaaacacc 109
311 <210> SEQ ID NO: 24
312 <211> LENGTH: 58
313 <212> TYPE: DNA
314 <213> ORGANISM: Artificial Sequence
316 <220> FEATURE:
317 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
319 <400> SEQUENCE: 24
320 gcagaagcta tgaaacgatt tgcttctgt cacaaatcgt tcatagcttc tgcttttt 58
322 <210> SEQ ID NO: 25
323 <211> LENGTH: 240
324 <212> TYPE: DNA
325 <213> ORGANISM: Artificial Sequence
327 <220> FEATURE:
328 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA
330 <400> SEQUENCE: 25
331 tttcccatga ttccttcata ttgcatata cgatacaagg ctgtagaga gataattaga 60
332 attaatttgc ctgtaaacac aaagatatta gtacaaaata cgtgacgtag aaagtaataa 120
333 tttcttgggt agtttgcagt tttaaaatta tgttttaaaa tggactatca tatgcttacc 180
334 gtaacttgaa agtatttcga tttcttggct ttatatatct tgtggaaagg acgaaacacc 240
W--> 338 (continued from previous page)
W--> 339 (continued on next page)
W--> 342 (continued from previous page)
W--> 343 (continued on next page)

delete

6

VARIABLE LOCATION SUMMARY
PATENT APPLICATION: US/10/567,168

DATE: 02/10/2006
TIME: 09:45:51

Input Set : A:\PTO.RJ.txt
Output Set: N:\CRF4\02102006\J567168.raw

even explanation

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:4; N Pos. 3,7,8,11

Seq#:5; N Pos. 3,7,8,9,12

Seq#:6; N Pos. 3,7,8,9,10,13

Seq#:7; N Pos. 3,7,8,9,10,11,14

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/567,168

DATE: 02/10/2006

TIME: 09:45:51

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\02102006\J567168.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:71 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:4
L:71 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:4
L:71 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:83 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:5
L:83 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:5
L:83 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:95 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:6
L:95 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:6
L:95 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:107 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:7
L:107 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:7
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:338 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:4
L:339 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:25
L:339 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:4
L:342 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:25
L:342 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:4
L:343 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:25
L:343 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:4